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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/818,997 | 03/28/2001 | Raymund Sonnenschein | 32301WC104 | 9757 |

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EXAMINER

MANOHARAN, VIRGINIA

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1764

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/818,997

Applicant(s)

SONNENSCHN ET AL.

Examiner

Virginia Manoharan

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-13 and 15-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-13 and 15-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claims 1, 3-13 & 15-24 are objected to because of the following informalities:

The inconsistent used of terminology in the claim is improper.

"the silane is added" in claim 1, as opposed to " the silane is introduced" in claim 4.

See also claims 13 & 16.

Claims 13 & 15-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitation of "a first product" and a second product" in claim 17 appears to broaden the trichlorosilane, allyl chloride and the chloropropyltrichlorosilane of claim 13, the claim from which it depends. It is also unclear whether the first product and the second product refers to the initially recited e.g., allyl chloride, trichlorosilane and chloropropyltrichlorosilane , and which is being referred to e.g., as the first product of the distillation process recited e.g., in claim 14? See further claims 19-21 and 23 -24.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-9, 13, 15-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seiler (4,224,233) or Schilling (6,015,920) in view of Seiler (4,196,139) and Bowman et al (5,559,264).

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The above references are applied for the same combined reasons as set forth at page 2 of the previous Office action.

Claims 10-12 and 22-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants' arguments filed September 9, 2004 and March 7, 2005 have been fully considered but they are not persuasive.

A) 112 Rejection:

Applicants' argument that "...those skilled in the art would understand the meaning of the claims, as written; based on the disclosure in the specification (for example, see page 5 of the specification). The specification clearly describes the first and second products and outlines the procedure for removal of chloride and silanes. Therefore, applicants request that the rejection be withdrawn because Applicants are not broadening the scope of the claim, rather they are narrowing the claim by identifying additional steps of the claimed method,," are not considered well-taken.

The claims should be able to stand by themselves. What one skilled in the art would understand is immaterial. While the process of claim 17 further limits the process of claim 13, however, claim 13 recites specific products e.g., ally chloride and trichloro-silane whereas, claim 17, depending on claim 13, recites a broad product (not referring to the above initial product, but to other products?

B) 103 Rejection:

Applicants' following arguments such as: "...none of the cited patents teach or fairly suggest employing a reaction column. Both Seiler patents teach performing the reaction in a three-necked flask having a glass tube inserted in one of the necks.... Likewise, Schilling uses a one-liter glass reactor... Bowman employs a four-necked flask fitted with septum, condenser, addition funnel, thermometer, magnetic stirrer and heating mantle... Hence, since none of the cited patents teach or fairly suggest employing a reaction column, none of them can teach or fairly suggest the temperature along the reaction column being between 90°C and 190°C or that distillation takes place simultaneously with the reaction in the reaction column." Moreover, there is nothing in the combined teachings of the cited document which would motivate one of ordinary skill in the art to employ a reaction column. " are not persuasive of patentability because of the following reasons.

The above references to "reaction in a three-necked flask" and glass reactor" would presupposed that the prior art flask and glass reactor are serving as devices for reaction purposes, and therefore would read or would correspond to the argued "reaction column". Likewise, the above references to a "condenser and heating mantle" in conjunction with the flask would obviously read on the argued "distillation taking place simultaneously with the reaction in a reaction column." This is because by definition, distillation is a combination of evaporation (with heating) and condensation (occurring in a condenser), which obviously are taught in the prior art, noting the above argument. Moreover, the argued temperature range is of no patentable moment. An artisan knows that temperature is the driving force in any distillation process, and

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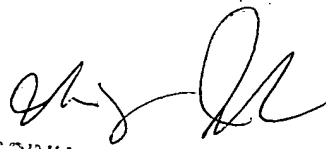
therefore is a result- effective- variable See e.g., col. 3, lines 55-60 of Seiler '233 disclosing a temperature range which overlaps the claimed temperature. That is, Seiler discloses that "...Generally speaking, the temperature will depend upon the nature of the reactants and the prevailing pressure. Broadly speaking, the temperature can vary between 0° and 250°, preferably between 50° and 180°C., with pressure and temperature being somewhat inversely proportional..."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Virginia Manoharan whose telephone number is 571-271-1450.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

V. Manoharan/af
July 26, 2005


VIRGINIA MANOHARAN
PRIMARY EXAMINER
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